



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R2–ES–2020–N040; FXES11130200000–201–FF02ENEH00]

Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for Sharpnose Shiner and Smalleye Shiner

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comment.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce the availability of our draft recovery plan for sharpnose shiner and smalleye shiner, two fish species listed as endangered under the Endangered Species Act. The two species are broadcast-spawning minnows currently restricted to the upper Brazos River Basin in north-central Texas. We provide this notice to seek comments from the public and Federal, Tribal, State, and local governments.

DATES: To ensure consideration, we must receive written comments on or before

[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. However, we will accept information about any species at any time.

ADDRESSES: *Reviewing document:* You may obtain a copy of the draft recovery plan by any one of the following methods:

- *Internet:* Download a copy at <https://www.fws.gov/southwest/es/arlingtontexas/>.
- *U.S. mail:* Send a request to U.S. Fish and Wildlife Service, Arlington Ecological Services Field Office, 2005 NE Green Oaks Blvd, Suite 140, Arlington, TX 76006–6247.
- *Telephone:* 817–277–1100.
- *U.S. mail:* Project Leader, at the above U.S. mail address;

Submitting comments: Submit your comments on the draft document in writing by any one of the following methods:

- *U.S. mail:* Project Leader, at the above U.S. mail address; or
- *Email:* ARLES@fws.gov.

For additional information about submitting comments, see **Request for Public Comments and Public Availability of Comments under SUPPLEMENTARY INFORMATION.**

FOR FURTHER INFORMATION CONTACT: Debra Bills, Field Supervisor, at the above address, via phone at 817–277–1100, or by email at ARLES@fws.gov.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service, announce the availability of our draft recovery plan for sharpnose shiner (*Notropis oxyrhynchus*) and smalleye shiner (*Notropis buccula*), two fish species listed as endangered under the Endangered Species Act, as amended (ESA; 16 U.S.C. 1531 *et seq.*). We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of sharpnose shiner and smalleye shiner throughout their range to assist in finalizing the recovery plan.

Sharpnose shiner and smalleye shiner are broadcast-spawning minnows currently restricted to the upper Brazos River Basin in north-central Texas and its major tributaries that occur within following counties in north-central Texas: Archer, Baylor, Crosby, Dickens, Fisher, Garza, Haskell, Jones, Kent, King, Knox, Lubbock, Lynn, Palo Pinto, Scurry, Stephens, Stonewall, Throckmorton, and Young. The draft recovery plan includes specific recovery objectives and criteria that, when achieved, will enable us to consider removing the sharpnose shiner and smalleye shiner from the Federal List of Endangered and Threatened Wildlife (List).

Background

Recovery of endangered or threatened animals and plants to the point where they are again secure, self-sustaining members of their ecosystems is a primary goal of our endangered species program and the ESA. Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the ESA. The ESA requires the development of recovery plans for listed species, unless such a plan would not promote the conservation of a particular species.

We utilized a streamlined approach to recovery planning and implementation by first conducting a species status assessment (SSA) of sharpnose shiner and smalleye shiner (Service 2018). An SSA is a comprehensive analysis of the species' needs, current condition, threats, and future viability. The information in the SSA provides the biological background, a threats assessment, and a basis for a strategy for recovery of sharpnose shiner and smalleye shiner. We then used this information to prepare an abbreviated draft recovery plan for sharpnose shiner and smalleye shiner that includes prioritized recovery actions, criteria for reclassifying the species from endangered to threatened, criteria for removing the species from the List, and the estimated time and cost to recovery.

Summary of Species Information

We published final rules to list the sharpnose shiner and smalleye shiner as endangered (79 FR 45273) with critical habitat under the ESA (79 FR 45241) on August 4, 2014. The sharpnose shiner historically occurred in the Brazos River, Red River, and Colorado River Basins within Texas, where headwaters for these basins lie within the semi-arid High Plains ecoregion. The smalleye shiner historically occurred only in the

Brazos River Basin. These species are currently restricted to the upper Brazos River and its major tributaries, which represents a greater than 70 percent reduction in range for the sharpnose shiner and a greater than 50 percent range reduction for the smalleye shiner (Service 2018).

Sharpnose and smalleye shiners spawn asynchronously from April through September during periods of no and low streamflow. Large, synchronized spawning events occur during high streamflow events (Durham 2007, p. 24; Durham and Wilde 2008, entire; Durham and Wilde 2009, p. 26). Field observations of sharpnose shiner and smalleye shiner in the upper Brazos River Basin indicate that successful survival to the juvenile fish stage does not occur during periods completely lacking streamflow (Durham and Wilde 2009, p. 24). The best available science suggests that the primary needs of sharpnose and smalleye populations include a minimum, unobstructed, wide, flowing river segment length of greater than 275 kilometers (171 miles) to support development of their early life history stages. However, this information comes from a study (Perkin and Gido 2011) that focused on similar species, rather than specifically on the sharpnose and smalleye shiners. We do not have information about specific stream length requirements for sharpnose and smalleye shiners. As we implement the recovery plan actions, we expect to gain valuable new information from the monitoring of reintroduced populations and continued research. This new information will be specific to these species and will modify estimates of the minimum stream length necessary to sustain resilient populations of these two species. Based on current life history information, population dynamics modeling estimates that a mean summer water discharge of approximately 92 cubic feet per second (cfs) is necessary to sustain sharpnose shiner populations (Durham 2007, p. 110), while a higher mean discharge of approximately 227 cfs is necessary for smalleye shiners (Durham and Wilde 2009, p. 670). The maximum life span of both species is less than 3 years (Marks 1999, p. 69). Given both species'

short lifespans and restricted range, stressors that persist for two or more reproductive seasons (such as a severe drought), severely limit these species' viability, placing them at a high risk of extinction (Service 2018).

The decline of sharpnose and smalleye shiner throughout much of their historical range is attributed primarily to habitat loss and modification due to fragmentation and decreased river flow resulting from major water impoundments, drought, and groundwater withdrawals. Water quality degradation, invasive salt cedar, and other factors may have also contributed to their decline. As a result, sharpnose and smalleye shiners' redundancy, or the ability to withstand catastrophic events, is limited to a single population within the historical range. With a single population of the sharpnose shiner and smalleye shiner reduced to a fragment of their former range, these species lack redundancy as well as the genetic and ecological representation to adapt to new or ongoing threats.

Recovery Plan Goals

The objective of a recovery plan is to provide a framework for the recovery of a species so that protection under the ESA is no longer necessary. A recovery plan includes scientific information about the species and provides criteria and actions necessary for us to be able to reclassify the species to threatened status or remove it from the List. Recovery plans help guide our recovery efforts by describing actions we consider necessary for the species' conservation and by estimating time and costs for implementing needed recovery measures.

The recovery strategy for the sharpnose and smalleye shiners involves stemming any further range contraction in the upper Brazos River Basin, improving resiliency of these species in the upper Brazos River Basin, and increasing redundancy and representation of both shiners. Much of the strategy focuses on habitat restoration and

preservation, predicated on an increased understanding of the relationship of the sharpnose and smalleye shiners' life history requirements within the physical, chemical, and ecological conditions of their environments. Information on these species and their habitats (for example, population dynamics, predation, river fragmentation, alterations in stream flow, and responses to identified threats) is needed to provide for better future science-based management decisions and conservation actions. Implementation of the recovery plan will necessitate adaptive management strategies to use the most up-to-date information as it becomes available.

The recovery of the sharpnose and smalleye shiner will involve continued cooperation among Federal, State, and local agencies; private entities; and other stakeholders. Therefore, the success of the recovery strategy will rely heavily on the implementation of recovery actions conducted by and through coordination with our conservation partners.

Recovery objectives for reclassifying the species from endangered to threatened consist of:

- A viable, self-sustaining population of sharpnose and smalleye shiner dispersed throughout the upper Brazos River Basin,
- A captive population sufficient to protect against a catastrophic loss and facilitate population augmentation,
- Adequate stream flows to accommodate all life stages,
- Water quality sufficient to accommodate all life stages, and
- Restoration and preservation of natural river morphology.

Recovery objectives for removing the species from the List include the objectives for reclassifying the species to threatened status, in addition to:

- A second viable population of both the sharpnose and smalleye shiner within their historical ranges, as defined by criteria related to population size,

distribution, and extinction risk, and

- The availability of habitat sufficient to support two populations of both the sharpnose and shallege shiner, as defined by criteria related to adequate stream flows for all life stages, adequate water quality for all life stages, and adequate river morphology.

It is anticipated that implementation of these objectives would allow populations to become self-sustaining with minimal human intervention.

The criteria for removing the species from the List and the criteria for reclassification to threatened status provided in the recovery plan are based on the following:

- Improving habitat conditions and maintaining a viable population of both species in the upper Brazos River Basin, and
- The reintroduction of a second viable population of both species within their historical range with habitat sufficient to accommodate all of the species' life stages.

The above must be sustainable with minimal human intervention.

Recovery of these species through implementation of recovery actions is estimated to occur in 2050; total costs for all partners are estimated at approximately \$71 million over the next 30 years.

Request for Public Comments

Section 4(f) of the ESA requires us to provide public notice and an opportunity for public review and comment during recovery plan development. It is also our policy to request peer review of recovery plans (July 1, 1994; 59 FR 34270). In an appendix to the final recovery plan, we will summarize and respond to the issues raised by the public and peer reviewers. Comments may or may not result in changes to the recovery plan;

comments regarding recovery plan implementation will be forwarded as appropriate to Federal or other entities so that they can be taken into account during the course of implementing recovery actions. Responses to individual commenters will not be provided, but we will provide a summary of how we addressed substantive comments in an appendix to the approved recovery plan.

We invite written comments on this draft recovery plan. In particular, we are interested in additional information regarding the current threats to the species, ongoing beneficial management efforts, and the costs associated with implementing the recommended recovery actions.

Public Availability of Comments

All comments received, including names and addresses, will become part of the administrative record and will be available to the public. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—will be publicly available. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. Comments and materials we receive will be available, by appointment, for public inspection during normal business hours at our office (see **ADDRESSES**).

Authority

We developed our draft recovery plan and publish this notice under the authority of section 4(f) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Amy Lueders,

*Regional Director, Southwest Region,
U.S. Fish and Wildlife Service.*

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